Work Order ID 108649 Friday, October 25, 2013 1:16:59 PM

108649

Aug Page 1

rriudy, October	23, 2013 1.10.	. <i>39 F W</i> I	·									
Revision ID:	D3215-3 Webbing Tidy			Accept	*N900	040	100)* s	etup S	Start Stop	ı VI,	S1* S2*
Start Date: Required Date: Reference:		Start Qty: 40.00 Req'd Qty: 40.00	*40* *40*		Cust Item Customer:						:	
Approvals:	Process Plan:	my.	Date: 13-10-25 Date:			oate:		R		Start Stop	171	R1* R2*
Sequence ID/ Work Center II) <u> </u>	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
Draw Nbr D3215	Revisi Rev D	ion Nbr									•	
*100 *100* Waterjet FLOW CNC Waterje			Dwg D3215 (D3215-3A)2-Deburr if necessary		Prog y as D3215-3A			40		0	:	Au 13:10.25
*110 *110* QC Quality Control		QC2- Inspect parts off m Memo	achine FAI/FAIB	0.00				40		۵		13.10.2
120 *120*	(QC8- Inspect parts - seco	and check	0.00 DA				40 .				
QC Quality Control		Memo		0.00 B 10	7 වී			902			1	

			DQA:	Date:	
NCR:	Yes /	NO WORK ORDER NON-CONFORMANCE / UPDATE			-
			QA Closed:	Date:	

										QA Closed:	Date	e:
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N NCR N	•				Rework Scrap Use-as-is Work Order Update	Thern	Crosstube Small Fab Finishing Composite	ab Prod. Eng. Coor. Quality				
Root				Descri	ption of work order update	Îr	nitial	Ad	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chi	ef Eng	Desc	cription	Date	Verification	QC Inspector
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Equip/Tooling						1						
Operator												1
Material												
Setup												
Other												
Process										,		
Supplier				-								
Training												
Unapproved		<u> </u>										
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Landin	g Gear				General	_				•	_	_
1	Bending			<u> </u>	Bend	\vdash	Grain		_	Ovalized		Pressure/Forced
1	Centre No	ot Conce	ntric to (o/s	BOM/Route	\vdash	Hardwa			Over/Under		Temperature/Cure
Ĺ	Cracks			<u> </u>	Broken/Damaged	-	-	ion Incomplete	<u> </u>	Part Incorred		Weld
1	Crushed/	Crimped		_	Burrs			ions Incomplete	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
].	Cuffs			<u> </u>	Contamination	\vdash		enance		Part Moved		
	Heat Trea			L	Countersink	\vdash	Mislabe			Positioned V	· · ·	_
ļ	Inspectio		Tube	Ļ	Cut Too Short	\vdash	Misrea	d		Power Loss/	Surge [Other
	Ripples in				Drill Holes	\vdash	Offset					
ļ	Torque W			n	Drawing	\vdash		Calibration				
1	Turning S	-		<u> </u>	Finish			Sequence				
	Wave/Twist in Tube Fol				Folio		Outside	Dimensions	1			

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Work Order					Page 2							
Item ID: Revision ID: Item Name:	D3215-3 Webbing Tidy	<i>y</i>		Accept		*N900	1 040	100)* s	Setup Sta	, 1	S1*
Start Date: Required Date: Reference:	10/25/2013: 11/15/2013	Start Qty: 40.00 Req'd Qty: 40.00	*40* *40*			Cust Item Customer						3/ ·
Approvals:		tn:					Date:		R	Run Sta Sto		R1* R2*
Sequence ID/ Work Center II	D	Operation Description		Set U Run	Jp/ Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp.
130 Small Fab		Small Fab Memo 1-Cut D3215 as D3215-3B	-3B (2.130" x 0.530") as	0.00 per dwg D3	2152-Deburr3	-Identify			40	SA	1013	10-28
140 *140* QC Quality Control		QC5- Inspect part comple	teness to step on W/O	0.00	DAS 27 B 1893	8			40		;	
150 *150* Brake NC Brake NC		NC BRAKE Memo Form D3215-	3A as per Dwg D3215	0.00					ŲЗ			Sb

											DQA:	Date:	
NCR: \	/es	/ No				WORK ORDER NON-O	CO	NFORM	MANCE / UP	DATE			
									•		QA Closed:	Date:	
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Work Orac	- ' -					Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	٠٠.					Use-as-is	1		noforming	Finishing	1	re/Packaging	Other
NCR N	No.					Work Order Update	1		Large Fab	Composite	1	Supplier	1 H
	•								ت ت	,			لـــــا ا
Root					Descri	ption of work order update		nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data							Π						
Equip/Tooling													
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Other			İ									ł	
Process													
Supplier			Ì										
Training													
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						F	AUI	T CATE	GORY				
Landi	ng (Gear				General	_	-			1		7
		Bending				Bend		Grain			Ovalized		Pressure/Forced
l	1	Centre No	ot Concei	ntric to	o/s l	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

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Turning Sequence
Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

108649

Page 3

Item ID: D3215-3 Accept *N900040100* Setup Start **Revision ID:** Item Name: Webbing Tidy *40* Start Date: 10/25/2013 **Start Oty: 40.00 Cust Item ID: Required Date:** 11/15/2013 Req'd Qty: 40.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. Work Center ID Description **Run Hours** Code **Qty Qty** Number Stamp QC5- Inspect part completeness to step on W/O 0.00 DAS *160* 13.10-29 OC 0.00 Memo Quality Control 170 0.00 Large Fab *170* Large Fab 0.00 Memo Large Fab Weld D3215-3 by joining D3215-3A and D3215-3B as per Dwg D3215 and QSI BATCH: 41/23 92 8 Identify as D3215-004A/R AL ROD 3Grind flush QC10- Inspect visual per QSI004- ground welds 0.00 DAS *180* 9 13-10-25 OC 0.00 Memo Quality Control

DQA:	Date:		
-		•	

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Skid-tube Engineering Crosstube Water Jet Rework Quality Part No. Prod. Eng. Coor. Machining Small Fab Scrap **Thermoforming** Finishing Rec/Store/Packaging Other Use-as-is NCR No. Work Order Update Large Fab Composite Supplier Sign & Description of work order update Initial Action Root Qty Chief Eng Date Verification QC Inspector or Non-conformance Description Cause Date Step Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Bending Bend Grain Ovalized Pressure/Forced Temperature/Cure BOM/Route Over/Under tolerance Centre Not Concentric to O/S Hardware Weld Broken/Damaged Cracks Inspection Incomplete Part Incorrect Wrong Stock Pulled Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Part Moved Maintenance Cuffs Contamination Positioned Wrong Mislabeled Heat Treat Countersink Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Misread Ripples in Bend **Drill Holes** Offset **Torque Waves in Extrusion** Drawing Out of Calibration Turning Sequence Finish Out of Sequence **Outside Dimensions** Wave/Twist in Tube Folio

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Work Order ID 108649 *108649* Friday, October 25, 2013 1:16:59 PM Item ID: D3215-3 Accept *N900040100* Setup Start * Revision ID: Item Name: Webbing Tidy *40* Start Date: **Start Qty: 40.00** 10/25/2013 **Cust Item ID: Required Date:** 11/15/2013 Req'd Qty: 40.00 **Customer:** Reference: Run **Process Plan:** Date: Approvals: Tooling: Date: Stop Date: _____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Work Center ID **Description Run Hours** Qty Code Oty Number QC5- Inspect part completeness to step on W/O 0.00 *190* 0.00 Memo Quality Control

Chemical Conversion Coat per QSI005 4.1

0.00

HandFinish

Hand Finishing

Memo

0.00

210

Powdercoat

Powder Coating

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3 M 1/7 33 4

0.00

Memo

0.00

OVEN TEMPERATURE:

40 \$ 13-10-31.

Page 4

Insp.

Stamp

DAS

NCR:	Yes	/	No
		•	

DQA: _____ Date: _____

NCR: Ye	es / No				WORK ORDER NON-C	LON	FUKI	MANCE / UPL	DATE	QA Closed:	Date	e:	
Work Order	•				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No					Rework Scrap		ſ	Engineering Quality					
NCR No	NCR No Work Order Update							noforming Large Fab	Other				
Root				Descri	ption of work order update	In	nitial	Act	ion	Sign &			
Cause	Date	Step	Qty	(or Non-conformance	Chie	ef Eng	Descr	ription	Date	Verification	QC Inspector	
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	Bending				Bend	Ц°	Grain			Ovalized	<u> </u>	Pressure/Forced	
L	Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re	L	Over/Under	tolerance	Temperature/Cure	
L	Cracks				Broken/Damaged		Inspecti	on incomplete		Part Incorred	it L	Weld	
L	Crushed/Crimped Burrs						Instruct	ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
L	Cuffs Contamination						Mainte	nance		Part Moved			
	Heat Treat Countersink							eled		Positioned V	Vrong	_	
	Inspection Strip in Tube Cut Too Short						Misread	j		Power Loss/	Surge	Other	
	Ripples in Bend Drill Holes						Offset						
Torque Waves in Extrusion Drawing						Out of Calibration							
Turning Sequence Finish					Out of Sequence								
Γ	Wave/Twist in Tube						Outside Dimensions						

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Work Order				*108649*								Page 5		
Item ID: Revision ID: Item Name:	D3215-3 Webbing Tidy	′										*N:	S1* S2*	
Start Date: Required Date: Reference:	10/25/2013 : 11/15/2013	Start Qty: 40.00 Req'd Qty: 40.00		40* 40*		Cust Item I Customer:	D:					•		
Approvals:	Process Pla	ın:	_ Date:		Tooling:	Da	ate:		J	Run	Start	*N	R1*	
	QC:		Date:		SPC (Y/N):	Da	ate:				Stop	*NI	R2*	
Sequence ID/ Work Center II 220 *270* QC Quality Control *230 *230 *230* Packaging Packaging	D	Operation Description QC3- Inspect Part Finish Memo Packaging Amemo			Set Up/ Run Hours 0.00 DAS 27 0.00 B 88 0.00 0.00	Tool ID	Tool#	Code		Qty	3 <i>[</i>]	Reject Number		
240 * ?11 * QC Quality Control		QC21- Final Inspection - Memo	Work Order Ro	elease	0.00				ML	J'	13-1	1-04 My 13		

											DQA:	Date:	
NCR: Y	Yes	/ No				WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE	OA Classel	Data	
											QA Closed:	Date:	
Work Orde	or.					DISPOSITION		1		AGAINST DE	PARTMENT	/PROCESS	
Work Orde	-					Rework	7		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	-					Use-as-is	1		noforming	Finishing	4	re/Packaging	Other
NCR N	No. ِ					Work Order Update]		Large Fab	Composite]	Supplier	
								<u> </u>			·		
Root					Descri	ption of work order update		Initial		tion	Sign &	!	
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling							1					ļ	•
Operator													
Material				1			1						
Setup													
Other	П												
Process			ŀ				ı						
Supplier							ļ						
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Unapproved			1										
				''''''	<u></u>		AUI	LT CATE	GORY				
Landi	ng (Gear				General							
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

Burrs

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Friday, October 25, 2013 1:16:58 PM

Work Order ID:

108649

Parent Item:

D3215-3

Parent Item Name:

Webbing Tidy

Comments:

IPP A 04.01.06

New issue KJ/RF

IPP Rev:B Now on Waterjet 06-07-03
IPP rev C ecp 940 07 06 12

JLM

Start Date: 10/25/2013

Required Date: 11/15/2013

Start Qty: 40.00

Required Qty: 40.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M5052H32S.040 5052-H32 .040 Sheet		Purchased	No			100	sf	198.2600	0.008	1		A.	13.10-28
			*	Location		Loc Qty	<u>Lo</u>	c Code					
				MAT022		198.260045							
				122	406	14.160045							
				124	445	7							
				124		39.1					_	1/1	
				125		16			12	555	æ	7 ()
				m12	26593	122							•
M5052H32S.040 5052-H32 .040 Sheet		Purchased	No			130	sf	198.2600	0.0258	SA_0^2	/3	-10-	as
				Location		Loc Qty	<u>Lo</u>	c Code					
1				MAT022		198.260045							
				122	406	14.160045)			
				124	445	7							
				124:	573	39.1							
				125:	552	16							

m126593

16 122

		DQA:	Date:
NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE		

NCR: Y	es / No				WORK ORDER NON-C	CON	FUKI	MANCE / UPI	DATE	QA Closed:	Da	te:	
Work Orde	er:				DISPOSITION	AGAINS				PARTMENT	/PROCESS		
Part No.					Rework Scrap Use-as-is		Skid-tube Crosstub Machining Small Fa Thermoforming Finishin			4	Water Jet d. Eng. Coor. re/Packaging	Quality Other	
NCR N	lo				Work Order Update	╛┃		Large Fab	Composite]	Supplier		
Root				Descri	ption of work order update		itial	Act	tion	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chie	ef Eng	Descr	ription	Date	Verificatio	n QC Inspector	
Doc/Data													ļ
Equip/Tooling	_												
Operator													
Material	_												
Setup													
Other	_										!		
Process		ł											
Supplier													
Training	_												
Unapproved		1	l			ALIET	CATE	L			<u>i</u>		_
Landir	ng Gear				General	AULI	CATE	30111					_
	Bending				Bend	\Box	Grain		,	Ovalized		Pressure/Forced	
	Centre Not Concentric to O/S			o/s	BOM/Route	\prod_i	Hardwa	re		Over/Under	tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	H	nspecti	ion Incomplete		Part Incorre	ct	Weld	
	Crushed/Crimped				Burrs	П	nstruct	ions Incomplete/U	Unclear	Part Lost/Mi	issing	Wrong Stock Pulled	ı
	Cuffs				Contamination		Mainte	enance		Part Moved			
	Heat Trea	at			Countersink		Mislabe	eled		Positioned V	Vrong		
	Inspectio	n Strip in	Tube		Cut Too Short	'r	Misread	ţ		Power Loss/	Surge	Other	
	Ripples in	n Bend			Drill Holes		Offset						
	Torque V	Vaves in 1	Extrusio	n _	Drawing		Out of 0	Calibration					
	Turning S	Sequence	!	ļ	Finish	Out of Sequence							

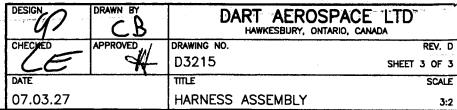
Outside Dimensions

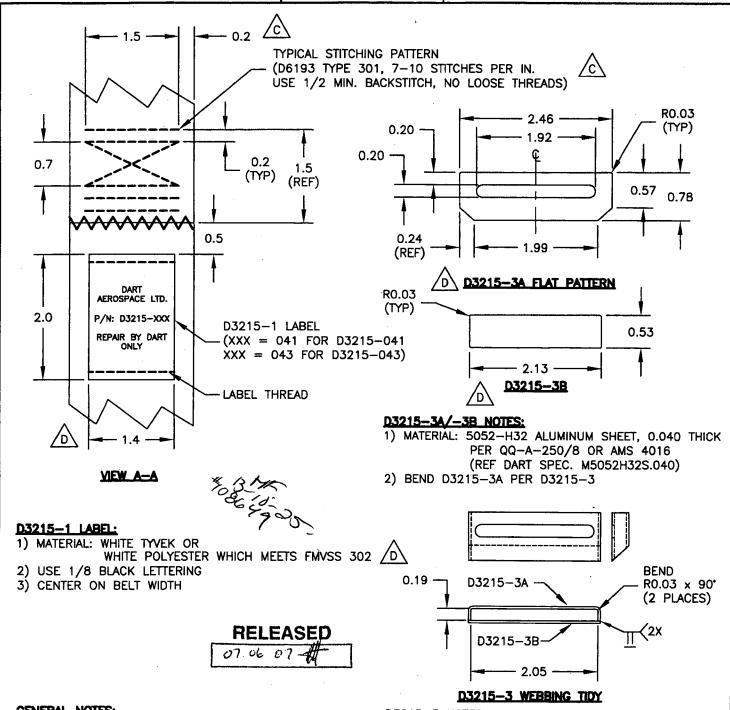
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Wave/Twist in Tube

Folio







GENERAL NOTES:

- 1) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

D3215-3 NOTES:

- 1) WELD PER DART QSI 004
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3

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											DQA:	Date:		
NCR: Y	Yes / No WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:													
						DISPOSITION AGAINST D					PARTMENT			
Work Orde	er: _						,				1	p. 1	1	
Part N	1o					Scrap				Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality Other	
NCR N	No					Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite				~ —				
Root	T				Descri	ption of work order update		nitial	Act	ion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector	
Doc/Data													ļ	
Equip/Tooling												,		
Operator														
Material			i											
Setup								- 1						
Other							İ							
Process						·								
Supplier														
Training														
Unapproved									<u> </u>					
						F	AUI	T CATE	GORY					
Landi	ng Ge	ear				General		-			-		7	
	Bending Be					Bend	L	Grain			Ovalized		Pressure/Forced	
	Щ°	Centre Not Concentric to O/S BOM/Route				_BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure	
i		Cracks Broken/Damaged				Broken/Damaged	L	Inspecti	on Incomplete	<u>L</u>	Part Incorre	ct	Weld	
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/I	Unclear	Part Lost/M	ssing	Wrong Stock Pulled	
		Cuffs				Contamination		Mainte	nance		Part Moved			
		Heat Trea	at			Countersink		Mislabe	led		Positioned V	Vrong	_	
	\Box	Inspection Strip in Tube Cut Too Short					Misread			Power Loss/	Surge	Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order: /d	5649		
Description: Webbing Tidy	Part Number:	D3215-3A		
Inspection Dwg: D3215 Rev: D		Page 1 of 1		

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototyp	е
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.92	+/-0.030	1.90"	-		٧	JKM- 61
0.20	+/-0.030	,19"	_		٧	
0.78	+/-0.030	,77"	_		γ	
0.20	+/-0.030		_		V	
2.46	+/-0.030	2.45"	_		V	
0.57	+/-0.030	,57	_		V	
······································						

Measured by:	Audited by	y: < M	Prototype Approval:	N/A
Date: 13 '10	.25 Date	e: J3 1/0	Date:	N/A

Rev	Date	Change	Revised by A	pproved
A	04.02.10	New Issue	KJ/RF	
В	06.03.15	Dwg Rev update	KJ/JLM	
Ç	07.10.24	Dimensions updated per Dwg Rev D	KJ/EC/DD,	
D	08.09.10	0.53 dimension removed	KJ/DD 🛠	Z

										DQA:	Dat	e.
NCR: Y	es / N	·			WORK ORDER NON-C	ON	FORN	MANCE / UPDATE		QA Closed:	 Dat	e:
Work Orde	-نر				DISPOSITION			AGA	INST DE	PARTMENT	/PROCESS	
Part No.					Rework Scrap	Scrap Machining Small Fab		l Fab	Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other	
NCR No.			Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite					nec/3tol				
Root				Descri	ption of work order update	In	itial	Action		Sign &		
Cause	Dat	e Step	Qty		or Non-conformance	Chie	ef Eng	Description		Date	Verification	QC Inspector
Doc/Data					· · · · · ·							
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Material												
Setup												
Other					·			1		;		
Process												
Supplier										1		·
Training												
Unapproved											<u> </u>	
· · · · · · · · · · · · · · · · · · ·					F	AULT	CATE	GORY				
Landir	ng Gear				General					3	-	_
	Bendi	ng		_	Bend	-	Grain	, •		Ovalized	ļ.	Pressure/Forced
	Centr	Not Conce	entric to	O/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Crack				Broken/Damaged	-	•	on Incomplete		Part Incorre	<u> </u>	Weld
	Crush	ed/Crimped	Ė		Burrs	_		ions Incomplete/Unclear		Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	\square	Mainte	nance		Part Moved		
	Heat Treat				Countersink		Mislabeled			Positioned V	V rong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio